

AMORY CURRENT LAKE BIOASSESSMENT
AUGUST 2014

Greetings Lake Amory Residents!

Please find the latest bioassessment report for your lake below. Our next lake inspection is scheduled for **October 21st**; weather permitting. Key highlights of this update include:

- Algae bloom present
- Hydrilla status
- Herbicide treatment status for each section of the lake
- Nutrient study complete for the East Crystal Chain of Lakes; community presentation scheduled for **October 16th**
- Lake Vegetation Index (LVI) bioassessment conducted
- Continued encouragement to plant native aquatic plants along your shoreline
- Recommendations for you and your lake

East Crystal Chain of Lakes Nutrient Study:

Environmental Research & Design, Inc. (ERD) has concluded a multi-year study to develop a water and nutrient budget for The East Crystal Chain of Lakes (which includes Lake Amory). This study, funded by Seminole County, included extensive field monitoring to assist in quantifying water and nutrient inputs to the lake. A community meeting is being scheduled for **October 16th** at the Events Center in Lake Mary to present this valuable information. Please help us get the word out by informing your neighbors of this meeting!

Observations:

On **August 19th, 2014**, Seminole County Lake Management Program staff (Thomas Calhoun, Gloria Eby, and Marianne Pluchino) surveyed the aquatic plants in Lake Amory and conducted a Lake Vegetation Index (LVI) bioassessment.

The LVI was created by the Florida Department of Environmental Protection as a rapid screening tool (bioassessment) for ecological condition; it determines how closely a lake's flora (aquatic plants) resembles that of an undisturbed lake.

Lake Amory is 9 surface acres located in the Lake Monroe watershed. Scores for Lake Amory have historically ranged from 28 to 44. LVI score for 2014 was 28 in the impaired range. The low score for this year is attributed to an exotic plant being the dominant plant in one of the four sections of the assessment.

LVI Range	Description
78-100	Exceptional
43-77	Healthy
0-42	Impaired

All areas of the lake were accessible. In **Lake Proper** area, blue green algae was observed for the second consecutive month. Hydrilla sprigs were found around **Bird Island** and the **Lake Proper** areas. The current amount of hydrilla requires no treatment action at this time. Hydrilla will be closely monitored over the next few months.

Photo: Hydrilla sprig found in the Lake Proper area.



Cactus Canal and **Outfall Canal** were found to be in good condition. Submersed aquatic vegetation (SAV) observed in the cove included roadgrass and bladderwort. Invasive emergent vegetation included: alligatorweed, elephant ear, dog fennel, and torpedo grass.

Photos: Example of road grass.



Photo: Outfall and grass carp barrier found in good shape.



In the **Bird Island** area, small sprigs of hydrilla were found. At this time, no action is required. Native vegetation such as duck potato, pickerelweed, native sedges, smartweed, roadgrass, spike rush, and bulrush had expanded in this area. The treatment for invasives has done very well in this area.

Photo: Herbicide contractor treating exotics in the bird island area.



The Cove was found to be in great shape again! Native emergent vegetation was expanding very well in this area. Previously planted canna, pickerelweed, and duck potato have established and are growing well. Invasive torpedo grass and alligatorweed were targeted in this area for herbicide treatment.

Photo: Alligatorweed and salvinia (small floating plants).



Photo: Canna expanding in The Cove.



The **Lake Proper** area was found to be in good condition as well. The access corridors were open and accessible. Alligatorweed and torpedo grass were targeted during the treatment.

Photo: Accesses corridor.



The secchi reading (water clarity) at the time of inspection was 4.2 feet in a total depth of 11.5 feet. No triploid (sterile) grass carp fish were observed during the inspection. The grass carp barrier was found in good condition. Water elevation at the time of inspection was 39.9 feet above sea level.

Lake Recommendations:

- 1- Work together or establish a lake association with other lakefront owners. Have at least one annual lake association meeting, invite guest speakers (such as county or state biologists) and discuss lake specific issues, especially lake management recommendations. Seminole County Lake Management staff would be glad to present our findings from this and other surveys to the community. Contact Seminole County Lake Management Program at (407) 665-2439 with questions or to schedule a meeting.
- 2- Increase native aquatic plantings along shoreline (such as pickerelweed, duck potato, and canna). Native shoreline plants help absorb nutrients from rainfall/run-off, thereby

improving habitat and water quality, and reducing shoreline erosion of sediments/organic matter into the lake. Without management, this erosion and sedimentation will fill the lake over time, creating a wetland-type of environment. Planting native species now can assist in slowing this process (formally known as eutrophication). In addition, native plantings can reduce your herbicide costs/needs, thereby providing a savings to you!

- 3- Utilize the valuable educational outreach programs that are available, such as Shoreline Restoration Workshops, Florida Yards and Neighborhoods (FYN) interactive presentations, and Lake Management Video mail-outs. Implement a media campaign within the community about reducing personal pollution by: decreasing overall fertilizer usage, using only phosphorous-free and slow-release nitrogen fertilizers, keeping a functional shoreline with beneficial native aquatic plants, and keeping grass clippings out of your lake and the stormdrains that lead to the lakes. All of these activities aid in protecting your lake! Contact Seminole County Lake Management Program (407) 665-2439 for more information regarding the free educational programs available.
- 4- Help spread the word! Obtain email addresses from neighbors not currently on the distribution list in order to share this information with others. Valuable information is contained within these reports.

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